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EXAMINER

LE, DANH C

ART UNIT PAPER NUMBER

2683

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,961

Applicant(s)

BAJIKAR, SUNDEEP M.

Examiner

DANH C. LE

Art Unit

2683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-7, 11-13, 20-23, 26-28 and 30-34 is/are rejected.
- 7) ☒ Claim(s) 8-10, 14, 15, 24, 25 and 29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 2, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Baranowsky (US 5,732,359).

As to claim 1, Baranowsky teaches a method (figure 1) comprising:

providing at least two wireless transceiver interfaces (transceiver 12 has an RF section 18 which communicates with satellite 60 and cellular transceiver),

deriving device characteristics and priority information from a priority and a type of each said wireless transceiver interface (figure 4);

sending said device characteristics and priority information to each said wireless transceiver interface (figure 4); and

disabling one wireless transceiver interface while another wireless transceiver interface is conducting communication (col.9, lines 5-10).

As to claim 2, Baranowsky teaches the method of claim 1 (col.2, line 38-col.3, line 14), including:

detecting activity signals from said at least two wireless transceiver interfaces (col.2, lines 51-53);

assigning a priority to each said wireless transceiver interface (auto-roam satellite priority, auto-roam cellular priority);

Art Unit: 2683

tracking a potential communication associated with each said wireless transceiver interface (detect the threshold value);

arbitrating control of communication between said at least two wireless transceiver interfaces based on the priority and the potential communication (col.3, lines 29-42); and

selectively energizing each said wireless transceiver interface based on the control of communication (col.3, lines 29-42).

As to claim 3, Baranowsky teaches the method of claim 2, wherein assigning said priority including prioritizing each said wireless transceiver interface based on a first criterion indicative of an overhead associated with said potential communication for each said wireless transceiver interface (figure 4).

As to claim 11, Baranowsky teaches an apparatus (figure 1) comprising:

an antenna (14');

a first communication interface coupled to the antenna (14') corresponding to a first wireless device;

a second communication interface coupled to the antenna (14) corresponding to a second wireless device; and

a module operably coupled to the first and second communication interfaces to disable communication between the first communication interface and said first wireless device while the second communication interface is conducting communication for said second wireless device.

As to claim 12, Baranowsky teaches the apparatus of claim 11, wherein said first communication interface to provide a first activity signal, said second communication interface to provide a second activity signal, and said module to detect the first and second activity signals, assign a priority to each said active wireless device, track a potential communication associated with each said communication interface, and to arbitrate control of communication between the first and second communication interfaces based on the priority and the potential communication corresponding to said first and second wireless devices; and

selectively energize the first and second communication interfaces based on the control of communication.

As to claim 13, Baranowsky teaches the apparatus of claim 11, wherein said module to: determine a type of and assign a priority to each said wireless device, derive device characteristics and priority information from the priority and the type of each said wireless device; and send said device characteristics and priority information to each said communication interface (figure 1).

As to claim 16, Baranowsky teaches an article comprising a medium storing instructions that enable a processor-based system (figure 1) to:

provide at least two wireless transceiver interfaces (transceiver 12 has an RF section 18 which communicates with satellite 60 and cellular transceiver);

deriving device characteristics and priority information from a priority and a type of each said wireless transceiver interface (figure 4);

Art Unit: 2683

sending said device characteristics and priority information to each said wireless transceiver interface (figure 4); and

disable one wireless transceiver interface while another wireless transceiver interface is conducting communication (col.9, lines 5-10).

As to claim 17, Baranowsky teaches the article of claim 15 further storing instructions that enable the processor base system (figure 1, 40) to:

detect activity signals from said at least two wireless transceiver interfaces (col.2, lines 51-53);

assign a priority to each said wireless transceiver interface (auto-roam satellite priority, auto-roam cellular priority);

track a potential communication associated with each said wireless transceiver interface (detect the threshold value);

arbitrate control of communication between said at least two wireless transceiver interfaces based on the priority and the potential communication (col.3, lines 29-42);
and

selectively energize each said wireless transceiver interface based on the control of communication (col.3, lines 29-42).

2. Claims 21 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Walkup (2002/0111137).

As to claim 21, Walkup teaches a processor-based system (figure 2) comprising:
a processor (210);

a storage operably (216) coupled to said processor to store a priority protocol to track pending transactions associated with at least two active wireless transceivers and prioritize one of said at least two active wireless transceivers;

at least two wireless transceiver interface devices operably coupled to said processor to provide corresponding gating signals associated with the at least two active wireless transceivers; and

an arbitration device operably coupled to said at least two wireless transceiver interface devices to selectively provide communication control to said one of at least two active wireless transceivers based on the priority protocol.

As to claim 26, Walkup teaches a personal computer system (figure 2) comprising:

a processor;

a storage operably coupled to said processor to store a priority protocol capable of tracking pending transactions associated with at least two active wireless transceivers and prioritizing one of said at least two active wireless transceivers; and

a shared interface to operably couple a chipset with a radio device interface including:

at least two wireless transceiver interface devices operably coupled to said processor to provide corresponding gating signals associated with the at least two active wireless transceivers, and

an arbitration device operably coupled to said at least two wireless transceiver interface devices to selectively provide communication control to said one of at least two active wireless transceivers based on the priority protocol.

As to claim 31, Walkup teaches personal computer system (figure 2) comprising:
a processor; and

at least two wireless transceivers coupled to the processor, each of the at least two wireless transceivers to provide a gating signal to indicate activity in a corresponding radio device.

As to claim 32, Walkup inherently teaches the personal computer system of claim 31, further comprising a single antenna coupled to the at least two wireless transceivers (figure 2).

As to claim 33, Walkup inherently teaches the personal computer system of claim 31, further comprising a controller coupled to receive each of the gating signals and arbitrate a communication channel between the at least two wireless transceivers (figure 2).

As to claim 33, Walkup inherently teaches the personal computer system of claim 33, wherein the controller to arbitrate using a priority of each of the at least two wireless transceiver (figure 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2683

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 5-7, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baranowsky.

As to claims 5-7, Baranowsky teaches the method of claim 2, Baranowsky fails to teach a criterion indicative of an amount of data, power consumption and ownership of the channel lock. However, the examiner takes Official Notice that the recite limitations are known in the arts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of reciting limitations into the system of Baranowsky in order to enhance system performance of the mobile terminal.

As to claim 19, the limitation of the claim is the same limitation of claim 7; therefore, the claim is interpreted and rejected as set forth as claim 7.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Walkup in view of Shaffer (US 6,377,798).

As to claim 22, Walkup teaches the processor-based system of claim 21, Walkup fails to teach arbitration device selectively powers up or down the at least two wireless transceiver interface devices based on the communication control. Shaffer teaches arbitration device selectively powers up or down the at least two wireless transceiver interface devices based on the communication control (col.3, lines 12-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention

Art Unit: 2683

was made to provide the teaching of Shaffer into the system of Walkup in order to conserve physical space or reduce cost as Krasner suggested (col.6, lines 29-50).

5. Claims 23, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walkup and Shaffer (US 6,377,798) in view of Baranowsky.

As to claim 23, the combination of Baranowsky, Walkup and Shaffer teaches determine the type of each said active wireless transceiver derive device characteristics and priority information from the priority and the type of each said active wireless transceiver, and send said device characteristics and priority information to each said active wireless transceiver.

As to claim 27, the limitation of the claim is the same limitation of claim 23; therefore, the claim is interpreted and rejected as set forth as claim 23.

As to claim 28, the combination Walkup, Baranowsky and Shaffer teaches the personal computer system of claim 27, the combination of prior arts fails to teaches one of said at least two active wireless transceivers to communicate using a short range communication standard-based protocol while another one of said at least two active wireless transceivers to communicate using a long range communication standard-based protocol. However, the examiner takes Official Notice that the recite limitations are known in the arts. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of reciting limitations into the system of Baranowsky and Walkup in order to enhance system performance of the mobile terminal.

Response to Arguments

As to page 10 of the applicant's remarks, the applicant argues that Baranowsky did not disclose either deriving device characteristics and priority information from a priority and type of wireless transceiver interfaces, nor sending such device characteristics and priority information to the wireless transceiver interfaces.

In response, the examiner believes that Baranowsky discloses either deriving device characteristics and priority information from a priority and type of wireless transceiver interfaces, nor sending such device characteristics and priority information to the wireless transceiver interfaces (see figure 4).

Allowable Subject Matter

Claims 8-10, 14, 15, 24-25, 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 8, 14, 24, 28, the teaching of above prior arts fails to teach query said arbitration device to acquire a channel lock for the communication control in response to an indication from said arbitration device, gain ownership of the channel lock; open a communication channel for a communication session, and release the ownership of the channel lock when the communication session is finished.

Dependent claims are allowable for the same reason.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



June 10, 2005
DANH CONG LE
PATENT EXAMINER